

FL1DK-C
FILTER, BANDPASS

1. GENERAL. This procurement requires a set of tunable bandpass filters that operate in the frequency range of 2.5 to 18 GHz.

2. CLASSIFICATION. Type II, Class 6, Style EP and Color R in accordance with MIL-T-28800 for shipboard applications with the following exceptions:

- a. The power source requirements are not invoked.
- b. The electro-magnetic interference (EMI) requirements are not invoked.

3. OPERATIONAL REQUIREMENTS. The kit is limited to a maximum of nine filters to cover the specified frequency range. Each filter in the kit shall be capable of continuous tuning over its portion of the frequency range. All of the operational requirements listed below, with the exception of frequency range, shall apply to each individual filter.

3.1 Frequency range. 2.5 to 18 GHz.

3.2 Passband insertion loss. 2.0 dB maximum.

3.3 Power rating. 50 watts continuous and 100 watts peak for at least 1 us.

3.4 Passband VSWR. 2.0:1 maximum.

3.5 Passband width. Passband values of the filters shall be in accordance with table 1. Each filter shall provide at least 25 MHz frequency overlap with adjacent filters.

TABLE 1. Passband Values.

<u>Attenuation</u>	<u>Bandwidth</u>
3 dB 35 dB 50 dB	50 MHz \pm 10% 100 MHz Maximum 150 MHz Maximum

3.6 Impedance. 50 ohms nominal.

3.7 Connectors. Type N female.

3.8 Indicator. Each filter shall be provided with a direct-reading frequency indicator that displays the tuned frequency.

4. GENERAL REQUIREMENTS.

4.1 Weight. 9.1 kg (20 lbs)

4.2 Lithium batteries. Per MIL-T-28800, lithium batteries are prohibited without prior authorization. A

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request for approval for the use of lithium batteries, including those encapsulated in integrated circuits, shall be submitted to the procuring activity at the time of submission of proposals. Approval shall apply only to the specific model proposed.

4.3 Transit case. The style P transit case shall have specific positions for each component of the filter kit. The case shall provide protection for the filters against shock, vibration and other environmental hazards. The case shall be in compliance with the requirements set forth in MIL-T-28800.